

Appl. No. 10/673,324
Amendment dated: March 13, 2006
Reply to OA of: September 30, 2005

REMARKS

This is in response to the Official Action of September 30, 2005. Applicants have amended the claims in order to more precisely define the scope of the presently claimed invention, taking into consideration the outstanding Official Action.

Specifically, Applicants have canceled claim 2, without prejudice or disclaimer. Further, Applicants have amended claim 9 to address the objection to claim 9 under 37 CFR 1.75(c). The Official Action urges that claim 9 fails to further limit the subject matter of a previous claim. Accordingly, Applicants have amended claim 9 to recite that the organic light emitting diode is white organic light emitting diode. Support for this amendment may be found at, e.g., page 3, lines 15-18 of the specification as originally filed. In light of this amendment, Applicants respectfully request that the objection to claim 9 be withdrawn.

Additionally, Applicants have added new claims 10-12. Applicants respectfully submit that these claims are clearly supported by the specification as originally filed, including the drawings. Applicants respectfully submit that all claims now pending in the present application are in full compliance with the requirements of 35 U.S.C. §112.

The rejection of claims 1, 3-5 and 7-9 under 35 U.S.C. §103(a) as being unpatentable over Sasaki et al. (US Pat. No. 6,038,006) in view of Matsuoka et al. (US Pub. No. 2002/0192576) has been carefully considered but is most respectfully traversed in light of the amendments to the claims and the following comments.

Applicants wish to direct the Examiner's attention to the basic requirements of a prima facie case of obviousness as set forth in the MPEP § 2143. This section states that to establish a prima facie case of obviousness, three basic criteria first must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

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The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Section 2143.03 states that all claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). "All words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Applicants also note MPEP §2143.01, which states in part that, if a proposed modification would render the prior art invention unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

Applicants also most respectfully direct the Examiner's attention to MPEP § 2144.08 (page 2100-114) wherein it is stated that Office personnel should consider all rebuttal argument and evidence presented by applicant and the citation of In re Soni for error in not considering evidence presented in the specification.

The Official action urges that Sasaki discloses an active matrix display structure similar to the active OLED display structure recited in claim 1. However, the Official Action acknowledges two differences between the presently claimed invention and the invention disclosed in Sasaki. First, the Official Action notes that the active display matrix disclosed in Sasaki is not used for an active organic light emitting display. While not expressly acknowledged in the Official Action, a review of Sasaki reveals that the structure disclosed therein is for use as an LCD devices. Second, the Official Action notes that the structure of the display disclosed in Sasaki does not comprise an OLED layer disposed on the black matrix layer and a cathode layer disposed on the OLED layer.

To compensate for these differences, the Official Action cites Matsuoka as disclosing an active matrix display for use in LCDs or OLEDs, wherein when the active

matrix display is an organic EL display, an OLED layer and a cathode layer are disposed over the anode element. The Official Action urges that one of ordinary skill in the art would reasonably contemplate the use of the active matrix substrate disclosed in Sasaki in organic light emitting devices as evidenced by the teaching of Matsuoka. Therefore, the Official Action appears to be arguing that, because Matsuoka allegedly discloses the use of the same active matrix structure in both an LCD and an OLED, it would be obvious to use any LCD active matrix substrate (such as the one disclosed in Sasaki) in an OLED device. Applicants specifically traverse this statement.

First, Applicants note that the technology of an LCD is vastly different from that of an OLED. As is well understood, a basic LCD device involves the application of an electric current across a liquid crystal material sandwiched between two polarized plates that are arranged perpendicular to each other. When the electric charges is applied to the liquid crystal material, light can no longer pass through, and thus dark areas are created. To the contrary, a basic OLED device emits light when an electric charge is applied across the organic material sandwiched between an anode and a cathode. Thus, the basic operation of each technology is clearly different and therefore requires different supporting structures.

Contrary to the assertion of the Official Action, Matsuoka supports the position that each technology requires different supporting structure and helps to demonstrate why it would not be obvious to use an LCD active matrix display with the organic light emitting diode layer of an OLED device. The Official Action urges that Figure 5 of Matusoka discloses an active matrix display substrate for use in LCD or OLED displays. This is a factually inaccurate statement. Paragraphs [0040] and [0042] of Matsuoka explain that Figure 3 illustrates a planar structure of a color LCD device and that Figure 5 illustrates a cross sectional structure taken along a line B-B in Figure 3. Therefore, it is clear that Figure 5 of Matsuoka does not illustrate an active matrix display substrate for use in both a LCD device and OLED device, but rather only illustrates an active matrix display substrate for us in an LCD device.

Further, Matsuoka refers to an entirely separate Figure when describing the structure for use with a OLED. Specifically, Figure 11 illustrates the structure used with an OLED, and a simple comparison of Figures 5 and 11 reveals that the structure illustrated is different. Therefore, contrary to the position taken in the Official Action, Matsuoka does not recognize that identical active matrix display substrates may be used for both OLED displays and LCD displays. Rather, it appears that the only commonality Matsuoka recognizes with respect to OLED and LCD is that an insulation layer can be formed on a substrate serving as the substrate of an LCD display or an OLED display and a color filter layer on a transfer film may be press bonded on the substrate. However, the remainder of the reference supports the position that the active matrix display substrate for OLED is different than LCD and therefore refutes the position taken in the Official Action that it would be obvious to use an LCD active matrix display substrate as disclosed in Sasaki in an OLED device. Accordingly, Applicants respectfully submit that the Official Action has failed to establish a prima facie case of obviousness according to the guidelines set forth in MPEP §2143 and therefore respectfully request that the §103 rejection of claims 1, 3-5 and 7-9 be withdrawn.

Further, Applicants note that, with respect to claim 8, Sasaki fails to disclose a black matrix layer disposed on the top surface of the electrical conducting layer as alleged in the Official Action. Rather, as can clearly be seen from Figure 2 of Sasaki, the pixel electrode 25 interpreted as an electrical conducting layer in the outstanding Official Action does not run the entire length of the device, but instead is absent under the black matrix areas 34. Thus, it is clearly shown that the black matrix area 34 is not disposed on the top surface of the electrical conducting layer because the electrical conducting layer does not run under the area where the black matrix area is disposed. Therefore, as neither Sasaki nor Matsuoka disclose or suggest this element of the presently claimed invention, Applicants respectfully submit that a proper §103(a) rejection according to the guidelines set forth in MPEP §2143 has not been established. Accordingly, it is respectfully requested that this rejection be withdrawn.

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With respect to claim 9, Applicants note the erroneous statement in the Official Action that Sasaki discloses an active matrix display structure wherein the organic light emitting diode is organic light emitting diode. The Official Action expressly acknowledges that Sasaki fails to disclose OLED. Further, as discussed in detail above, Matsuoka fails to remedy this deficiency and therefore neither reference discloses or suggests this element of the presently recited claims. Additionally, Applicants note the amendment to claim 9. Claim 9 now recites that the organic light emitting diode is white organic light emitting diode. As none of the prior art references either disclose or suggest this element of the presently amended claim, Applicants respectfully submit that a proper §103(a) rejection according to the guidelines set forth in MPEP §2143 has not been established and therefore respectfully request that this rejection be withdrawn.

The rejection of claim 2 under 35 U.S.C. §103(a) as being unpatentable over Sasaki and Matsuoka as applied to claim 1 in further view of Yamada (US Pat. No. 6,246,179) has been carefully considered but is most respectfully traversed in light of the amendments to the claims and the following comments.

As discussed above, claim 2 has been cancelled from the instant application without prejudice or disclaimer. Therefore, Applicants respectfully submit that this rejection is moot.


The rejection of claim 6 under 35 U.S.C. §103(a) as being unpatentable over Sasaki and Matsuoka as applied to claim 1 in further view of Kadota (US Pat. No. 5,818,550) has been carefully considered but is most respectfully traversed in light of the amendments to the claims and the following comments.

The rejection of claim 6 depends on the rejection of claim 1 as being unpatentable over Sasaki in view of Matsuoka. However, as discussed in detail above, the rejection of claim 1 fails to establish a prima facie case of obviousness, and therefore claim 1 is patentable over the references of record. As a claim that depends from an allowable claim, Applicants respectfully submit that claim 6 is also allowable, and therefore respectfully request that the §103(a) rejection of claim 6 be withdrawn.

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In view of the above comments and further amendments to the claims, favorable reconsideration and allowance of all of the claims now present in the application are most respectfully requested.

Respectfully submitted,
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